**Status Update**

**ET-Collar**

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**Project GitHub link:**

[**https://github.com/ETCollar/ET-Collar**](https://github.com/ETCollar/ET-Collar)

Under docs will be all the reports and proposal.

1. **Hardware**

Hardware required is Light/Lux Sensor (TSL2561), Accelerometer (LIS3DH) and (Gp-20U7). All the components are available and working as expected. PCB board has also been made and attached (through soldering) to the sockets and sensors respectively. PCB works perfectly as a bridge between sensors and Raspberry pi. Overall hardware for the project is ready and in working condition.

* 1. **Price Listing**

The total budget for the project is same as pervious report. PCB and sockets were provided by Humber Prototype Lab. All the required equipment for soldering and wiring was also available at Prototype to use free of any charges.

Raspberry pi ……………………… $ 99.00

TSL2561………………………………$ 09.99

LIS3DH ……………………………..$ 14.95

GP-20U7……………………………..$ 56.08

Sockets / /Soldering equipment provided by Humber Prototype lab.

Total……………………………………$180.02

**1.2 Progress in the sensor usage**

The Light Sensor Reading was as required for the project. The GPS was having some trouble getting satellite signals which was fixed and brought work by Gurpreet now GPS can receive signals from satellite and print it on screen. The only problem with the GPS is that the output string to be converted into user friendly manner in order to store data at database. The accelerometer displays data on screen which also needs to be converted into more reasonable way in order to get displacement only by avoiding unnecessary data.

**1.3 PCB Updates**

PCB is made and soldered to sensor sockets respectively and works as perfect as supposed.

1. **Software Progress**

The application is working and exchanging data with firebase all layouts are completed. There will be only minor changes to be made. Sensor code is the only thing that needs to be updated and fixed in order to get readings and store them at the database. The readings are not being stored at database directly through sensor for that code need to be debugged so that readings will get updated as soon as sensor receives different data.

1. **Individual Progress**

Reports and Proposal are prepared by both project members and throughout most of the time group members are working as a team. PCB designing and assembly / soldering was done by both of us.

Individual progress:

Gurpreet was working on mostly hardware part and sensors accelerometer and GPS both of them were not working last week he got GPS able to track location there are still minor updates to be done but it most importantly it is able to get readings. He is also working with Simarjeet with application and database interaction and sensors to database to sensor data exchange.

Simarjeet was working on software part designing application layouts our database is now connected with application the only part left is connected raspberry pi with database to store readings. Github account is also up to date all the time all the reports and progress is update on github and documents are under directory docs.

1. **Upcoming goals**

The next goals are:

* Get accelerometer to display approximate displacement
* GPS output conversation
* PUSH data to Firebase
* Make the necessary modification to android application according to database requirement.